

REMARKS

In the Office Action, claims 1-9, 11-12, 29-30, 32-33 and 35-36 have been rejected under 35 U.S.C. § 102(b) as being anticipated by McBrayer, Jr. et al. (U.S. Patent No. 5,552,039). Further, claims 10, 31 and 34 have been rejected under 35 U.S.C. § 103(a) as being unpatentable over McBrayer, Jr., et al. in view of Hervert et al. (U.S. Patent No. 3,472,632).

In response, Applicant has amended independent claims 1, 11 and 32. Specifically, each amended independent claim now requires that a pump continuously pass a heat transfer fluid through the porous layer of the liner to cool the non-porous layer of the liner and remove heat therefrom to reduce accumulation of insoluble salts on the liner. Support for these amendments is found in the specification beginning on page 7 at lines 6-13, on page 14 at lines 24-31, and from page 15 at line 3 through page 17 at line 3.

The amendments to claims 1, 11 and 32 have been presented herein to improve the readability of the claims and to point out the features that distinguish the present invention over the cited art. Also, these amended claims more clearly define the structure and cooperation of structure for the present invention. Claims 1-12 and 29-36 remain pending.

Rejections under 35 U.S.C. § 102(b)

In the Office Action, claims 1-9, 11-12, 29-30, 32-33 and 35-36 have been rejected under 35 U.S.C. § 102(b) as being anticipated by McBrayer, Jr. et al. (U.S. Patent No. 5,552,039).

In response, independent claims 1, 11 and 32 for the present invention have been amended to require that the pump continuously pass a heat transfer fluid through the porous layer of the liner to cool the non-porous layer of the liner and remove heat therefrom to reduce accumulation of insoluble salts on the liner. The McBrayer, Jr. et al. reference fails to disclose or suggest the structure and cooperation of structure required by the amended independent claims.

Specifically, McBrayer, Jr. et al. disclose a reactor in which an inert gas is fed to its porous layer until a desired pressure is reached within the porous layer. Once pressurized, the porous layer prevents a leak of corrosive material through the non-porous layer. Unlike the present invention, McBrayer, Jr. et al. fail to provide for the continuous passage of a heat transfer fluid through the porous layer to cool the non-porous layer. In fact, McBrayer, Jr. et al. fail to disclose or suggest that the pumps, valves, regulator and inert gas used to pressurize the porous layer are capable of continuous passage of a fluid to cool the non-porous layer. McBrayer, Jr. et al. lack such a disclosure or suggestion despite their recognition of the need to cool the reactor evidenced by their disclosure of four other structures for cooling their reactor. These include a cooling jacket 470, a cooling jacket 570, a cooling coil 670, and cooling fins

770 (Figs. 6-9). None of these structures discloses or suggests the features of the claimed invention.

For the reasons provided above, Applicant asserts that the basis for rejecting claims 1-9, 11-12, 29-30, 32-33 and 35-36 under 35 U.S.C. § 102(b) as being anticipated by McBrayer, Jr. et al. has been overcome by amendment and argument. Accordingly, Applicant respectfully contends that independent claims 1, 11, and 32 are patentably distinguishable from the cited references (McBrayer, Jr. et al. and Hervert et al.). Further, since claims 2-10, 12, 29-31 and 33-36 depend either directly or indirectly from independent claims 1, 11 or 32 they are likewise allowable. For these reasons, Applicant believes that the rejection of claims 1-9, 11-12, 29-30, 32-33 and 35-36 should be withdrawn.

Rejections under 35 U.S.C. § 103(a)

In the Office Action, claims 10, 31 and 34 have been rejected under 35 U.S.C. § 103(a) as being unpatentable over McBrayer, Jr., et al. in view of Hervert et al. (U.S. Patent No. 3,472,632).

Claims 10, 31 and 34 depend from amended independent claims 1, 11 and 32, respectively. As a result, claims 10, 31 and 34 require elements not disclosed or suggested by McBrayer, Jr. et al., as explained above. Furthermore, Hervert et al. do not provide any disclosure or suggestion relating to the features in Applicant's independent claims that are not disclosed or suggested by McBrayer, Jr. et al.

Specifically, Hervert et al. fail to disclose a vessel liner that is cooled by continuously passing a fluid through the liner's porous layer to remove heat therefrom to reduce accumulation of insoluble salts thereon.

Due to the lack of teaching or suggestion in either McBrayer, Jr. et al. or Hervert et al. to continuously pass a heat transfer fluid through the porous layer of the vessel liner, no combination of these references discloses or suggests the invention claimed in independent claims 1, 11 and 32.

For the reasons provided above, Applicant asserts that the basis for rejecting claims 10, 31 and 34 under 35 U.S.C. § 103(a) as being unpatentable over McBrayer, Jr., et al. in view of Hervert et al. has been overcome by amendment and argument. Therefore, Applicant requests that the rejection of claims 10, 31 and 34 under 35 U.S.C. § 103(a) be withdrawn.

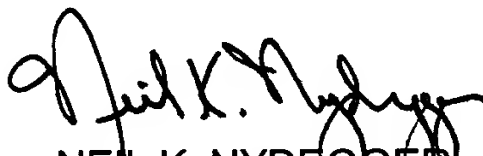
Further, Applicant notes that claims 6, 11 and 35 each require that the liner include a partition extending between the vessel wall and the non-porous layer to divide the porous layer into sections. In the Office Action, the Examiner fails to reference any feature in the cited prior art that partitions the porous layer. Clearly, McBrayer, Jr. et al. fail to disclose any partition of their porous layer. As noted in Applicant's previous response, Hervert et al. also fail to disclose any partition of their porous layer. Therefore, no combination of the cited references discloses or suggests a partitioned porous layer as required by claims 6, 11 and 35. For the reasons provided above, Applicant asserts that claims 6, 11 and 35 are further distinguished from and patentable

over the combination of McBrayer, Jr. et al. and Hervert et al.

In conclusion, Applicant respectfully asserts that claims 1-12 and 29-36 are patentable for the reasons set forth above, and that the application is now in a condition for allowance. Accordingly, an early notice of allowance is respectfully requested. The Examiner is requested to call the undersigned at 619-688-1300 for any reason that would advance the instant application to issue.

Dated this 27th day of January, 2006.

Respectfully submitted,

A handwritten signature in black ink, appearing to read "Neil K. Nydegger", is written over the typed name.

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